SALES BULLETIN NO. 95-38

FAST-FAX

Information Services

World Leader In Time-Sharing Service

January 15, 1971

SELLS 14 DATANET 730 TERMINALS – GROVER COLLECTS $350

Gerry Grover, Pittsfield, recently completed an outstanding selling effort on DN-730 terminals by bringing in 14 contracts from his GE customers, reports **Stan Brucker,** Eastern New York Branch Manager. Gerry will receive $350 for this from the Terminal Bonus plan.

His strategy on these Internal Accounts included:

* Cash flow kept in the General Electric Company
* Three year lease only $79/month vs. $96/month (competition).
* Reliable - quick - competent service.
* One vendor service for Time-Sharing and terminal
* Mobility of DN-730 enhances cost savings.
* ISMD is in the terminal business.
* Can update terminals to faster units at no financial penalty.

This conversion process was integrated with regular Time-Sharing customer calls and in no way distracted from growing Time-Sharing revenue. Congratulations, Gerry on a great selling job!

TERMINAL BONUS PLAN WILL CONTINUE IN 1971 – TN300 NOW INCLUDED, DETAILS COMING!!!

MARK II INCOME TAX PROGRAM

G.O. Mueller, Applications Development & Marketing: TAX70*, Mark II BASIC, for individual 1970 federal income tax returns is now available on the GPØ53 APEX catalog. It handles computations for the individual 1040 form along with Schedule A (itemized deductions). It runs in either conversational or file mode.

Instructions for running TAX70* are available in the file TAXIN*ST. No additional documentation is required. It requires minimal support. TAX70* may prove useful to current Mark II customers, including some small accounting firms, banks or other companies handling individual tax return preparation. Some customers may want to use this as a fringe benefit for their employees in computing or checking their tax returns. This program does not represent a complete tax package. All supporting data, including additional schedules, must be prepared prior to running TAX70*.

FLEXIMIS STATUS

The Flexible Management Information System, written by GE Corporate Engineering, has been made available on an advance release basis in selected areas. This was done to solicit customer and sales response prior to commercial release, said **Clarence Selin,** Applications Marketing. It will be commercially available about March 1. You will receive user manuals and sales material at the National Sales Conference, Feb. 28 – Mar. 6. Meanwhile, if you have any questions, call **Clarence,** 8*273-4731.

800 (1-71)

For Fast-Fax call: TTY:8*273-4524
8*273-4421 8*273-4714

GENERAL ELECTRIC

INFORMATION SERVICES MARKETING DEPARTMENT

IMMEDIATE ASSISTANCE FOR EDITING QUESTIONS

If you have a customer using the Editing functions for the first time on Mark II, and he's unsure of the procedures... help is on the system.

LINE EDITING FUNCTIONS

When he types EDIT EXPLAIN, he will get a list of the eleven Line Editing commands. This list is a guide to further information. For example, if he has never used the WEAVE function to weave portions of coding into a single program, type EDIT EXPLAIN WEAVE, and the system will explain the function as well as describe the format for usage.

STRING EDITING FUNCTIONS:

There are 20 string editing fuctions:

$ABORT	$INSERT	$REPLACE
$BACKUP	$LIST	$STRING
$BEGIN	$LOCATE	$SUBSTITUTE
$DUPLICATE	$MASK	$TEXT
$END	$MORE	$TIME
$FIND	$MULTIPLE	$TRANSLATION
$IGNORE	$PROGRAM	

To get an explanation and instructions on using the string editing functions, you merely substitute a question mark for the dollar sign followed by the command. For example, ?FIND will produce an explanation of the search-and-find function.

The function can do in seconds what it takes minutes to do manually. The Editing Commands reference manual is 911374A.

WRONG NUMBER!

Norm Otis, ISD Documentation Unit: INVENTORY CONTROL TOOLS, Publication 906320A, was recently reprinted. On the back cover, however, the number 907337A was erroneously printed. Please use number on front cover for identification purposes.

AIDS FOR DATA MANAGEMENT

Are you looking for programs or subroutines to pack and unpack files in data base management applications? Fast-Fax received from the field such routines which are now available on APEX***.

John Sliter, Schenectady, provided FORTRAN subroutines for alpha or integer strings. The packer is SALFA*PAC and the unpacker is SALFA*PIC. For assistance with these you may call John on 8*235-9241.

Ken Clement, Santa Barbara, Calif., sent programs to pack and unpack alpha strings in BASIC. BPACK*KC packs six alpha characters into a word plus one word for each alpha string. The character codes have to be between 31 and 64. The unpacker program is BUNPK*KC.

MAILING LIST PROGRAMS

If you want a computerized customer mailing list that can be manipulated – updated, modified, do select mailing – it's now possible with programs on APEX**... thanks to **Bob Caton,** Rochester, N.Y.

MASSM*IL prints customer names and address on sprocket fed Avery gummed labels. MODIF*AD guides you in updating your mailing list. It will print out about 200 addresses in less than an hour. A big help in preparing your LEADER mailings!!

PARTS EXPLOSION PACKAGE

Paul Morey, San Francisco, has made available on APEX** a **G**eneralized **R**andom-Access **P**arts **E**xplosion package (GRAPE). Using binary-random files, it is dimensioned to handle 6000 parts, 200 assemblies, and 200 parts per assembly.

INFOR*M is the basic file from which the system operates. MODFI*LE allows the user to add, delete parts, change labor or prices, modify assembly or clean the assembly file. Call Fast-Fax for documentation.

NEW REMAPT MANUAL GOOD TRAINING TOOL

A new REMAPT reference manual – good as a training tool, a classroom text, and a handy reference for the time-sharing user – is now available. Your NC customers, in either large or small firms, can use this text to sharpen the skills of REMAPT users.

Written by **James Childs,** nationally recognized consultant and educator in the field of Numerical Control, the manual uses a read-a-little, answer some questions, and review-a-little format. He has used REMAPT in conducting NC classes, and the new manual reflects his knowledge of GE Time-Sharing Service and Numerical Control. He starts with basics and builds on them through the use of problem type examples which shop people recognize.

The new manual, 002390, is $5. "Good NC training complimented by good documentation produces self-sufficient end users," reminds **Joe Domonkos,** NC marketing specialist.

FLASH

TAPE BMC PRICES JUST APPROVED. NEWS2*68 FOR DETAILS.

PETRO/CHEM CUSTOMER SEMINAR

A seminar-workshop for your petro/chemical customers and prospects on "Process Design via Time-Sharing Computer" featuring GE Time-Sharing Service will be held in Houston, Texas, Feb. 27 & 28. As part of the national meeting of the American Institute of Chemical Engineers,**Tal Briddell,** Application Sales, and **Robert V. Jelinek,** Syracuse University, will present GE offerings including GEPDS, GPSS, and DYSIM. Attendees may operate demo programs from terminals connected to the GE Mark II system.

The seminar costs $100 for members and $125 for non-members. For reservations, have your customer contact **Hal Abramson,** American Institute of Chemical Engineers, 345 East 47th St., New York, N.Y. 10017.

TECHNICAL TIPS

RELATIONSHIP BETWEEN PROGRAM SIZE AND EFFICIENCY, MARK II

When a program is large, it appears that the system gives it lesser priority, but priorities are not determined by program size alone. The system finds the best match between the programs in queue and the amount of core available. Once you get into core you don't want to get swapped out to receive an answer to an input statement. Here are some tips on program design to make programs more efficient, from **Dinu Martin,** Headquarters Sales.

When a program is conversational, the conversational part should be "isolated" in a "small conversational module". (The object code size of this module should be small). In FORTRAN at the end of this conversation, the data should be transmitted using COMMON to a second "computational" module. This can be quite large.

In BASIC, it is necessary to use a file between the links. This file will need to be opened and closed each time. This makes BASIC somewhat less efficient than FORTRAN.

The large computational link gets more core time (up to 4 times more) between swaps than small conversational links. This increases efficiency even more.

GEPAY$ FORMS

Moore Business Forms is planning nationwide publicity on the availability of payroll register and check forms which are used with GEPAY$, Generalized Payroll System.

In the meantime, if any problems arise concerning the ordering of these forms at the local level, contact **Francis Finch,** Moore Business Forms, 8*272-4011 then ask for 864-6007, advises **Ray Porter,** Mfg. & Bus. Appls.

CAUTION! TERMINAL WON'T TAKE FAST INPUT

Some high speed terminals – the 2741, Datatel, Dura, and other terminals , when using EBCD code-character sets – may create problems if fast input is attempted. Only manual input will be accepted – no cards or paper tapes – and typing must be relatively slow.

Leo Kotschenreuther, IND, said these terminals output a nine-bit character instead of eleven bits as in ASCII. If the RC hardware receives two of these characters without at least one intervening character of all mark bits, it will print the first two bits of the second character as the last two bits of the first. The same thing happens if the user types too fast. Often the keyboard will become suspended in the "unlocked" mode although any number of other manifestations could arise.

ALGOL FOR INTERNAL USERS ON MK II

Allen Nuss, Product Service, IND: Version 1 of ALGOL, without file capability, is currently on all Mark II systems. Its usage is restricted to internal users and will remain so until PR29 and the release of Version 2. There are approximately 100 R&DC user guides which will be issued, on request (to Nuss's office).

When Version 2, with file capability, is released, we will then release ALGOL as a Class 2 language. Class 2 will designate a language which has no future enhancements scheduled and has little, if any, applications support (CAS support, etc.). A revision of the R&DC manual under our banner will be available for customer usage upon commercial release.

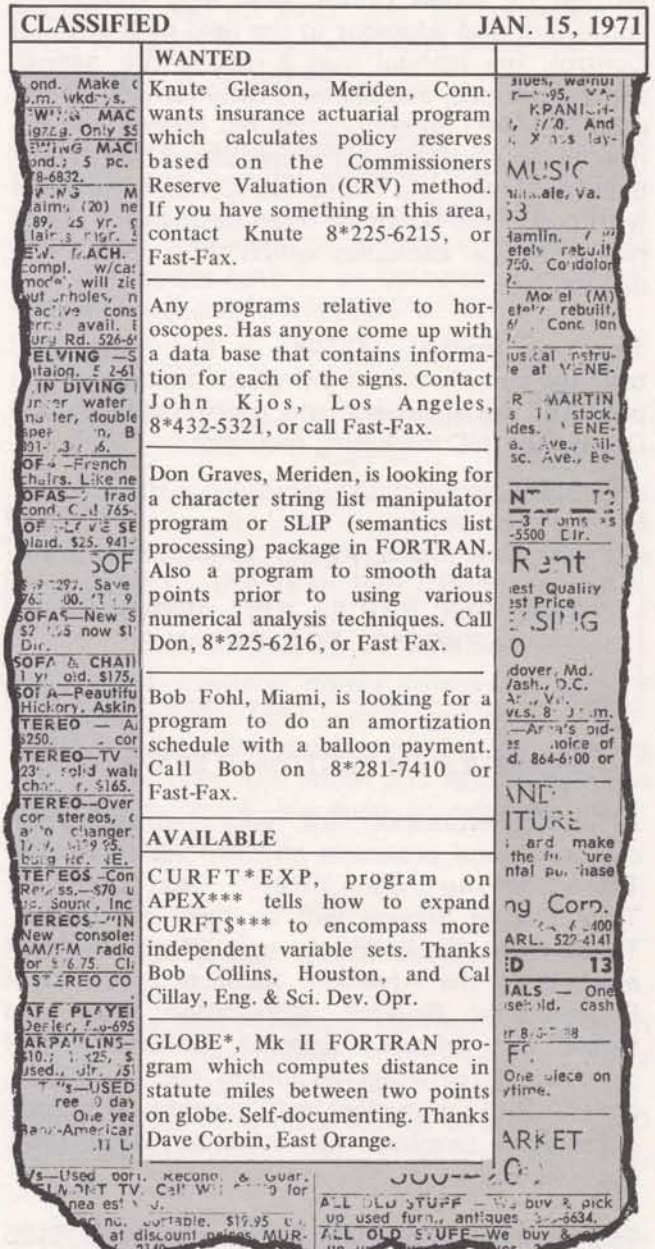
Editor's Note: Comments on the subject to Allen Nuss should go through the TELL.ME system.

CPA CONTACT

Contact for the New York Ernst & Ernst account is now **Bob Cohen.** You may reach him on 8*222-3486.

MULTILEVEL CPM SORT

Din Kurawadwala, Eng. & Sci. Applications: CPMX2A$*** is a new multilevel (3-level) CPM sort program which shall sort on three different keys at a time: first on major key, then on middle and then on the third or minor key. The running instructions are similar to CPMX2$*** (one-level) sort programs in publication AR-4.



CLASSIFIED JAN. 15, 1971

WANTED

Knute Gleason, Meriden, Conn. wants insurance actuarial program which calculates policy reserves based on the Commissioners Reserve Valuation (CRV) method. If you have something in this area, contact Knute 8*225-6215, or Fast-Fax.

Any programs relative to horoscopes. Has anyone come up with a data base that contains information for each of the signs. Contact John Kjos, Los Angeles, 8*432-5321, or call Fast-Fax.

Don Graves, Meriden, is looking for a character string list manipulator program or SLIP (semantics list processing) package in FORTRAN. Also a program to smooth data points prior to using various numerical analysis techniques. Call Don, 8*225-6216, or Fast Fax.

Bob Fohl, Miami, is looking for a program to do an amortization schedule with a balloon payment. Call Bob on 8*281-7410 or Fast-Fax.

AVAILABLE

CURFT*EXP, program on APEX*** tells how to expand CURFT$*** to encompass more independent variable sets. Thanks Bob Collins, Houston, and Cal Cillay, Eng. & Sci. Dev. Opr.

GLOBE*, Mk II FORTRAN program which computes distance in statute miles between two points on globe. Self-documenting. Thanks Dave Corbin, East Orange.

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A T/S FIRST ...PACKING PROGRAM GENERATOR, PPG1***

WHAT IT IS

PPG1*** is a small compiler. It converts a very simple syntax into 3 FORTRAN IV programs that it writes for you:

- —a data packing subroutine (PACKER)
- —a data unpacking subroutine (UNPACKER)
- —a verification program (VERIFIER) that lets you check the accuracy of the generated routines.

The programs are custom made to suit your data, said **Dinu Martin,** author of PPG1***. The GE Time-Sharing System will now write programs for the customers!

WHAT IT WILL DO FOR YOU

Packing helps achieve considerable storage and disc access economies (70-98% storage reduction as compared to ASCII, 25-75% on disc accesses). But the theory is difficult to understand and apply.

PPG1*** will generate in two minutes a set of packing routines that would take the best pro grammer a full day to write and test. The routines from PPG1 can be incorporated into a customers data management package and help him run applications otherwise too expensive.

FIELD TEST

"This is the largest and most difficult one pass program I have ever written." said Dinu Martin. The source code is about 33,500 characters long; the object code is more than 10,000 words. "It cannot be perfect. Please help with the field test and send to me your error reports or suggestions." The program cannot be made available to customers before it has been thoroughly tested, as this is an industry first.

PPG1*** is self-documenting and is now on system Ø8 (G) for you to try. (8*241-1297: use your GP053 user number)

FUTURE ENHANCEMENTS

Packing is only optimal storage-wise now. PPG1*** will be improved to optimize the cost of CRU's and DSU's depending on the monthly number of data accesses.

A data management utility library called DATØØL is presently being developed by the Applications Marketing and Development Operation. It will provide the user with more FORTRAN utility routines: a directory build-up routine, and all-purpose retrieval routine, sorting routines, etc. All these will operate on packed or unpacked data.

DATA BASE GUARDIAN PROTECTION

Here's a way to determine that your data on file reflects your most recent update: Use the data (IDAT(I)) and time (BCLK(X)) functions in your program. If the data files used in a data base are restored the user will know it and can take appropriate action using these functions as follows:

Have your data base programs print "LAST UPDATE AS OF (date, time)." Reading the date and time recorded, the user can, if necessary, restore the files before attempting an update or processing without damaging the files, advises **Dinu Martin,** Headquarters Sales.

800 (2-71)

For Fast-Fax call: TTY:8*273-4524
8*273-4421 8*273-4714

GENERAL ELECTRIC

INFORMATION SERVICES MARKETING DEPARTMENT

NEW GSORT$ CAPABILITY

The Generalized 5-key sort has been modified reports **John Hannah,** Applications Development Operation, to allow:

1. Sorting of floating point variables
2. Extraction of key fields and their associated line numbers for use as a "directory" file.
3. Selection of subclasses of data within a data file for separate sorting and processing.

For example, a user might select from an accounts receivable file the following records only:

> All accounts beginning with 8 whose balance is between $100 and $500 and whose due date is from the first to the fifteenth of the month — unless payment has been received.

These features are easy to use and greatly expand the utility of GSORT$-GMERG$ as data management tools. For information on these programs, list GSINF***, or ask John Hannah, AMDO, (8*273-4242) for a copy of the 6-page INFORM file.

NO PCA REP IN YOUR AREA?

If your customer or prospect has requested Portland Cement Association documentation for programs on Mark II, you usually obtain it from your local PCA rep. Some cities, however, do not have a rep. You may then obtain documentation by calling (312) 966-6200 or writing:

Dr. Cliff Fryermuth
Portland Cement Association
5420 Old Orchard Rd.
Skokie, Illinois 60076

Before running the programs, call up the information files on Mark II, PCABRINF***, PCACLIN*** and PCAPLINF***, urges **Boman Irana,** AMDO.

MARK II THERM$

A Mark II version of the Heat Transfer program, THERM$***, is now available. Ask Fast-Fax for documentation 531011

N/C HELP FOR YOU!

Some N/C gophers are working like beavers, says **Joe Domonkos,** AMDO.

Jim Quayle, Manager-Technical Services East Central District, has 18 NCPPL packages, fully documented and in their user number under "NCPPLCAT". Request permission to use from Jim.

Ed Denardo, East Orange has developed software for K&T machine tools, and **Art Lee,** Eastern Penn. District, has written it for Burgmaster (with time analysis). These are available from Joe *8273-4659.

Now in the GPØ53 catalog on System 08 (G), is a summary of 20 lathes post processors for use with REMAPT . . . this list is in MAIL**INC. It lists the name, type and file name of each of the 20 lathes.

TIPS FOR USERS

Want to keep track of ASCII data files with a minimum of character transmission?

Use GSORT$ with its EXTRACT option to obtain a sorted directory to your data files. EXTRACT writes a file which contains the sort order line number, key field words and their associated original line number, only. For instructions on how to use this very flexible sorting routine, list GSINF***, or contact **John Hannah,** 8*273-4242, for a copy of the six-page inform file.

CLASSIFIED ADS FEBRUARY 15, 1971

WANTED

Wanted – Don Smith, Louisville, is looking for a t/s version of PERT (Navy's version of CPM). Call Don on *8334-4211 or FAST-FAX.

Any program in real estate available (excluding the home-type retrievalit. program on APEX**). Contact Dave Bernstein, Toronto, or Fast-Fax.

Terminet-300 plotting routines that use horizontal and vertical tabbing features, with wide carriage. BASIC or FORTRAN or both. Vic Mack, Rochester, 8*251-9550, or call Fast-Fax.

Contract Engineering Serv

NO. 95-42

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CHILDS' NC SEMINAR IN CLEVELAND

A pro in NC, **Jim Childs**, will be conducting a 5-day seminar on REMAPT for GE Time-Sharing customers, April 12-16 in Cleveland. The seminar is limited to 15 people and costs $250 (plus their own T&L). REMAPT Reference Manuals are included. Participants will do terminal work in the seminar.

Childs is a nationally recognized authority in the field of Numerical Control. He is now under contract with General Electric to provide REMAPT training. Author of the REMAPT Reference Manual, he uses it to help NC users become self-sufficient. "With Childs as instructor, we are offering the best in N/C education," said **Joe Domonkos,** Applications Marketing.

To enroll your customer in this seminar, contact Jim Quayle, 8*344-6254, or call Joe on 8*273-4659. Similar NC seminars are being planned for other regions.

GSORT$, GMERG$ INSTRUCTIONS

John Hannah, AMDO, has on-line instructions for the Generalized Sorting and Merging programs. It's in 12 pages of printout. If you would like a copy of this printout contact John or Fast-Fax. For users interested in GMERG$ only, EDIT LIST 5980 through 9999 advises John.

COGO SUPPLEMENT

Bob Nelson, AMDO expert on Coordinate Geometry programs, has a 68-page COGO Users Guide supplement, 806229F available. It covers recent improvements in COGO$$, COGOD$, and DCOGO$. Call Fast-Fax for your copy.

"SPECIAL INCOME" ADDED TO GEPAY$

Generalized Payroll package, GEPAY$, now allows the user to define his income such as for all tax calculations, for FICA only, etc, says **Ray Porter,** Bus. & Mfg. applications.

For instructions on using the SPECIAL INCOME code, in GETAX*** edit list 5030-6270.

Also included is an explanation of how it will affect GEPAY$ Reports such as Labor Distribution, the payroll summary, the checks, etc.

MARK II NOW SERVICES UNIVAC DTC-500 TERMINAL

To accommodate the Univac DTC-500 terminal, the Friden mode has been slightly modified. When using the DTC-500 sign on the system at 110 baud, change speed to 30 cps, and then give the FRIDEN command. In the Friden mode, the system gives you some extra rubouts at carriage return time to let the long carriage get all the way back before sending the next character.

RGRTH$ IMPROVED

Reliability Growth Analysis, RGRTH$***, will now process other units than 'HOURS' for those people desiring to use the program in QC work said **Rob Ruzicka,** AMDO. In addition, the program has been modified to permit the user (1) more flexible input format, and (2) to scale the abscissa by a multiplier factor thus permitting a scale greater than 10^5. For a complete discussion of the new changes list INRGT***.

800 (3-71)

For Fast-Fax call: TTY 8*273-4524
8*273-4421 or 8*273-4714

GENERAL ELECTRIC
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BASIC I Friendly New Features

This capsule summary of the new entry in our market basket highlights questions which have been asked by marketing representatives.

Is BASIC 1 available in my territory?

Yes! It has been since March 1 if you have MARK I Service. Your customer can access BASIC 1 through the same telephone number he currently uses for MARK I.

What does BASIC 1 cost?

BASIC 1 costs $5.75 per terminal connect hour, $.03 per CRU, and $1.75 per PSU, with a monthly minimum charge of $25. The monthly minimum for MARK I has been reduced to $25., effective with March billing.

Is there an educational rate for BASIC 1?

There are two options: a flat $9.00 per hour and no charge for CRU's during prime & non-prime time; or $3.00 per terminal hour and $.03 per CRU during non-prime time only. The standard $1.75 per PSU applies to both options.

Where are the price schedules?

A new price schedule which lists both BASIC 1 and MARK I charges should be printed and mailed to you this week.

Can I sell BASIC 1 as a separate service or do I have to sell BASIC 1 and MARK I as a package?

You can sell BASIC 1 as a separate service since both MARK I and BASIC 1 have separate catalog numbers and independent $25 monthly minimums. We recommend that you sell them together. Together, the customer has the economy of BASIC 1 with the full power of MARK I at his finger tips without having to learn a new system.

How does my customer get access to both services?

Your customer has to be validated on separate catalogs for MARK I and BASIC 1. So, when requesting validation, please specify which service (or services) is required.

How does my customer change from MARK I to BASIC 1 and back again?

As both services are resident on the same GE-265, all that is required when on-line is to type "HELLO" and enter user number for the other service. All BASIC 1 catalog prefixes begin with the letter "B".

Can my customer use common files between BASIC 1 and MARK I?

No, files can not be shared between BASIC 1 and MARK I.

What sales support is being provided?

If you didn't get a copy of the Marketing Guide for BASIC 1, ask for a copy. If you have your copy, read it for detailed BASIC 1 sales strategy .

What initiation and administrative charges apply?

If your customer is a new subscriber of GE Time-Sharing Service, he is required to pay an initiation fee of $100. Current users pay a $1.00 fee for each catalog or user number validation, and this is included in the $10 minimum charge per request.

BASIC 1 publications include:

1. Four-color flyer – Pub. No.281040A
2. Vocabulary Key Card – Pub. No. 329090A
3. Card for selected prospects giving them one day of free BASIC 1 service – good from any terminal, no matter who may be their present T/S supplier – Pub. No.355031.
4. A 9 x 12 envelope for mailing materials to customers and prospects – Pub. No. 281040A-1.

Each sales office has received initial supply. There is no charge for a limited number of additional copies, so get your order in quickly.

Send orders to Jim Parkhurst, MSO, 7735 Old Georgetown Road, Bethesda, Maryland, 20014, or Dial Comm 8*273-4115. Or call Evelyn Geiger, 8*273-4112.

FEBRUARY SAW AN INCREASE IN MARK I REVENUE OVER THE PREVIOUS MONTH FOR THE FIRST TIME SINCE APRIL, 1970 AND JANUARY SAW A SUBSTANTIAL GAIN IN VALIDATIONS FOR THE FIRST TIME SINCE MARCH, 1970.

More Routines Added As DATOOL Builds Up!

1. SORTING ROUTINES IN FIV SUBROUTINE LIBRARY

QUICK SORT

Dr. George J. Feeney, General Manager of IND, gives us very efficient sorting subroutines called QUICK:

QUICKI sorts integers of alphas
QUICKR sorts reals
QUICKF sorts filenames

These routines

- Are faster than SHELL-SORT (400 integers sorted in 2.85 units versus 4.17 – see chart)
- Respect the order of the locations of X where the numbers (or filenames) are to be found in the proper ascending order. Therefore, they are better suited for sorting multi-field records than SHELL-SORT.
- Require twice as much core space (only 50% more for filenames) than SHELL-SORT, as the address array L has the same dimension as the data array X.

Dinu Martin, Headquarters Sales, says these routines should be used every time there is enough space in core.

Calling sequence:

CALL QUICKI (or QUICKR, or QUICKF) (N,X,L)
where N is the dimension of the arrays X and L, X is the data array, L the address array.

SHELL SORT

The subroutines in this group are now also part of the FIV subroutine library:

SHELLI for integers
SHELLR for reals
SHELLF for filenames

Calling sequence:

CALL SHELLI (X,N) (or SHELLR, or SHELLF)
where N is the dimension of the data array X.

Sorting speed is non-linear. Below are a few FIV benchmarks:

Number of Integers sorted	125	250	1000	4000
SHELL-SORT (CRUS)	0.04	0.16	0.84	4.17
QUICK-SORT (CRUS)	0.04	0.12	0.60	2.85

The formulas below provide a good approximation of the number of CRU's (X) required to sort N integers:

SHELL: $X=0.5158*10^{-7}*N^2+0.8517*10^{-3}*N-0.06223$
QUICK: $X=0.2866*10^{-7}*N^2+0.6066*10^{-3}*N-0.03499$

(IFIRST Cont. on page 4)

2. IFIRST ROUTINE

This loadable FIV function yields the number of the first record that begins on a given page of a random binary file. It should be used with the "page directory" technique.

Calling sequence

L = IFIRST(IPAGE, IRS)

where IPAGE = PAGE number
IRS = record size in words (must be less than 315 words)

This brings to 8 the number of programs or subprograms in DATOOL. The three QUICK routines, the three SHELL routines and IFIRST are available for FIV programs to load right now on all systems.

DATE CONVERTER

Harvey Henson, Orlando, has sent three subroutines which calculate a unique day number for dates in the range of March 1, 1900 through February 28, 2100. The first routine finds the day number; the second, given the day number will find the month, day, and year for you; and the third routine, given the day number, will give you the day of week, i.e. Monday, Tuesday, etc.

Routines are useful for computing number of days between two days (Scheduling, CPM, prorating budgets) and the day number may be used as a file reference for files ordered by date or date/time.

Harvey used binary files to keep a customer happy, and had to use these routines to get him there. He stores Dow-Jones closing values for each day. With the number as the address, the customer then puts in a day, month, and year, the subroutine converts it to a number and zap, the data is retieved.

Thanks Harvey — the routines are stored on APEX under HARVY*. It's FORTRAN selfdocumenting, and has a small driver program preceding the three subroutines.

WRITTEN NUMBERS FOR GEPAY$ CHECKS

Now you can have the dollars amount written in alpha characters to use with the check writing module of GEPAY$. **Ray Porter**, Bus & Mfg Appl., has available on APEX the routine CHAMT* which offers GEPAY$ users another option in check preparation to fit their individual needs.

PPGX*** WORKS!

So far no bugs have been discovered. In response to many requests, Dinu Martin, Headquarters Sales, has run a few benchmarks of the routines generated by PPGX***. The results are listed below:

Packing alpha characters (or unpacking) is performed by the routines at the rate of 0.00015 unit/character. The total cost of converting data from an ASCII file to a packed binary file (or vice-versa) is about 0.31 unit/K character at present FIV rates including disc accessing, overhead, etc.

Packing (or unpacking) integers costs about 0.00018 unit/integer.

NEW EAST ORANGE NUMBER

To telephone the ISMD people at the East Orange, N.J. office now call 8*224-2011.

CLASSIFIED ADS	MARCH 15, 1971
WANTED	**AVAILABLE**
George Chipman, Pittsburgh, wants a maintenance program like FAME that has a resource allocation. Call George or Fast-Fax.	GE Service Shop Locations list with DN-730 and TN-300 Man-In-The-Van locations and Dial Comm indicated. Contact Fast-Fax.
Dave Hodkin, Ottawa, is looking for a program of radiation dosimetry for electronic beams. If you have one, call Fast-Fax.	DSS Applications and Authors, March 1971 listing, may be offered to customers. Contact Fast-Fax.
Ken Wallace, Indianapolis, is looking for the bio-medical programs made available through University of California. Has anyone paid the $75 for the programs and converted them to time-sharing? Call Ken or Fast-Fax.	Complete list of Applications and Marketing Development Operation people and their respective applications which they support. Quick reference for "Who To Contact at Headquarters". For list contact Fast-Fax.

...G, sharp & personable. No ...per. nec. Call ... Burton ...ency, ...01 Ga. ave., Wheaton.
TRAINEE—$6000 yr. Natl. ... in all lines of admin.
OIL BURNER MECHANICS — Top Wages, Vienna Fuel Co., ... 2100.
OIL BURNER MECHANIC — HUMBLE OIL & REFINING CO. has ...
... trucks in N.W. ... knowledge of ... pitalization & ... 7104, 7-6 p.m.

NO. 95-43

FAST-FAX

Information Services

World Leader In Time-Sharing Service

April 1, 1971

NEW PALLET LAYOUT AND CASE DESIGN PROGRAMS

Generalized versions of the existing PALLET LAYOUT and CASE DESIGN programs are now available in the Mark II library under the program names PALET*** and PCKG***. The new software has been generalized to permit user changes to 1) the supplied 48" x 40" pallet pattern data base, 2) the building of a user supplied data base covering other than these pallets, and 3) the calculation of tiering height based on compression test results.

Copies of documentation may be obtained from FAST-FAX.

BASIC 1 FREE USER CARD

A sample free user card was enclosed in each Mark I/Basic 1 sales kit that was mailed to your office in early March. As discussed in the Mark I Marketing Guide, p. 17, available at the Sales Conference, each office is responsible for directing its own campaign. You should target your offering date(s) in advance and send the cards only to those prospective Basic 1 customers who already have terminals. You should use MAILBOX in establishing the no answerback check user number.

Each office is responsible for the usage billed, and you should use your own cost center when establishing the user number. Free user cards are available from **Jim Parkhurst**, Mark I, 8*273-4115.

WHICH OPTION DO YOU RECOMMEND?

If your customer asks you to recommend one or more of the connect-time price options for his Mark II/Network subscription, KCOPT* in the DPØ 53 catalog can help. Just input his past months' billings, which are tabulated on the first page of his invoice. This program will do all the basic arithmetic to find his average kilocharacter usage.

If you input four or more months of data, it will compute a linear regression analysis of any trends in I/O usage and recommend a future month when a different option should be investigated.

Finally, it will print out a simple table which illustrates the costs to your user of a 10 character per second terminal vs. a 30 cps terminal. Lease costs, degree of user interaction, and the three connect-time options are factors considered by this table. The results are formatted in a style suitable for presentation to your customer. If you need assistance in using KCOPT*, call Tom Choate, ISMD Pricing, 8*273-4472/387.

NC FILES ON APEX**

Jim Quayle, Manager-Technical Services East Central District, and **Robert Bruning**, Cincinnati, are offering NCPPL packages for 18 different machines on APEX**. Each package has four files covering 1) documentation of vocabulary user, 2) machine tool description file, 3) comprehensive cycle, and 4) sample part program.

For a listing and description of each of the packages, ask Fast-Fax for a copy of the printout.

800 (4-71)

For Fast-Fax call: TTY:8*273-4524
8*273-4421 8*273-4714

MORE VALIDATION INPUT THROUGH MAILBOX-II

The original MAILBOX program was set-up primarily to handle validation requests. In recognition of the increased importance of accurate name and address information for customer billing and sales commission plans, MAILBOX-II was developed.

Included in its specifications is the ability to "capture" the ISMD MAILBOX input at the source, allow IND-Customer Service and DFO-Revenue and Cost Accounting to review, and then pass the name and address data directly to the master customer name and address file.

Validation and name and address command inputs to MAILBOX at each Network Computer Center should be as accurate and complete as possible. Inaccurate or incomplete inputs will result in rejection of a MAILBOX request by IND/DFO, require re-submission, and quite possibly cause a loss of revenue credit for sales commission plan purposes.

With the introduction of PR-29, the "immediate run" feature will be utilized for MAILBOX and the cost to use MAILBOX will revert to IND.

TECHNICAL INFORMATION EXCHANGE REPORT

The following are titles and numbers of technical reports done within the General Electric Co. Fast-Fax can tell you where you can obtain an abstract of these, and where you can get a copy of the technical report. Some may be releasable to persons outside the General Electric Co.

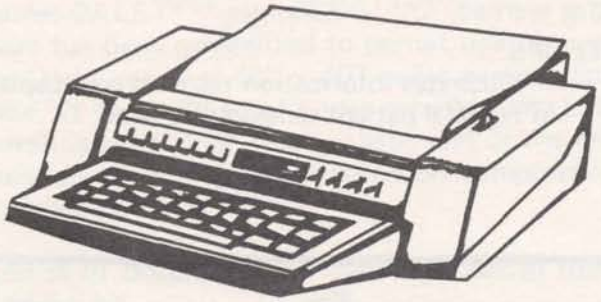
Allowable Stresses for Circumferential Butt Welds in Pipe	71LS6
Artwork Update Program Description	70ELS110
Calculation of Array element patterns for an interleaved ipole array using the method of moments	70ELS107
Circuit and Systems Analysis Programs on the GE-635	70ICPO1
Circus User's Manual CCE version	70ICPO3
Combustion Development Instrumentation System	70GTD37
Design of a whole-word modular control processor (MCP-701)	70APJ6
Dragline Bucket Attitude Control	70DS7
Dynamic model of a cement kiln	71C064
IRRGEN Input Generator for THTD	70AEG434
Link I: A General Purpose structural analysis computer program	70SL152
Mfg. methods for bipolar MICROMOSAIC large scale integrated circuits	70GR179
Model for obtaining launch vehicle response statistics using adjoint technique	70ASD1000
Multiple beam sonar digital signal processor	68EMH20
Noise reduction of barrier walls	70GTD39
Packing rub effect	70LS87
Turbine Blade Section Gen. Program	70AEG449
Program to contour map at 2 dim array	66EMH36
SCEPTRE Users Manual	70ICP04
Short-time collapse analysis of combustors with application to the TF-39	70AEG455
Time-Share computer programs for business planning and forecasting	70AEG408
Two dim transonic channel flow computation procedure using the time-dependent technique	70AEG448
Users Guide for GIPS postprocessing on interactive devices	70AEG442
Users Manual for BANAR, a program to compute buckling loads and natural frequencies for shells of revolution	70AEG400
VIBS the 635 time sharing computer program for jet engine systems critical frequency and mode shape analysis	70AEG450

SOC SIZE IN FORTRAN OR FIV

When a variable or an array is declared in a program, if it is in COMMON no space is actually reserved for it in the Saved Object Code version of the program, said **Dinu Martin** Headquarters Sales.

When it is declared using Dimension or Real or Integer, etc. (not COMMON) the same thing holds true in FIV but not in FOR. This is particularly important for those programs that use large arrays: the cost of storage will be minimal using FIV or COMMON in FOR.

Data statements result in reservations of the appropriate number of words in the compiled code. More details? Call **Dinu Martin** 8-272-4468.



WIDE ROLL PAPER HOLDERS FOR TN-300

The standard ISMD configuration of the TN-300 printer has a 118 column friction platen which permits the use of wide paper up to 12 27/32". The internal paper holder, however, can only handle roll paper of 8½" width. If the user desires to use roll paper wider than 8½", a wide roll paper holder is needed. Two choices are available, said **Dick Sharman**, Data Communication Terminals Sales.

1) The External Paper Handler which contains a wide roll paper holder as well as a paper handler. Lease cost is $3 per month.
2) A Wide Roll Paper Holder which is mounted on the rear of the terminal. Lease cost is $2 per month.

We recommend the External Paper Handler which improves the flow of the paper to and from the printer. Please check current orders for compatibility of the configuration you have ordered with the intended use of the terminal. Revise orders as necessary and keep the paper holder in mind for future orders.

NEW CPM PROGRAM

For users who wish to use the Critical Path Method with a specified Ending Date for a project instead of the beginning date specified for CPMX1, there is a new program now on Mark II, CPMPTT***.

Instructions are the same except for the following input:

A. The Network Input File contains the desired Ending Date of the project as the second line of the file.

110 11,01,70 (Nov. 1, 1970)

B. The Holiday File must be in descending calendar order – i.e. with the latest holiday first in the file.

20	12,25,71,2	(Christmas Day)
30	11,26,71,2	(Two day Thanksgiving holiday... latest day comes first in file)
40	11,25,71,2	

Contact **Din Kurawadwala,** AMDO, 8*273-4224 for CPM assistance.

CPMX1 IMPROVEMENT

If your user wishes to have CPM solution in terms of full days (instead of ½ days) it can be done as follows:

1) Give all durations (in Network Activity File) in full days
2) Give holidays in full days
3) The first data (length of the work week) in the network activity file should be negative, i.e. for five days 100 -5.

EMBEDDED LINE FEED NOW LEGAL

John Wright, IND: If you wish to Edit a file, an embedded Line Feed character in your file is now legal. An Escape (ESC) character in your file now, however, will result in an error message (the same as you did get with the Line Feed, e.g. -FATAL ERR LWRIT-).

HAZELTINE CRT DEMO PROGRAMS

Ten programs which demostrate the capabilities of the Hazeltine CRT terminal, are now available on the DPØ53 catalog. The programs, listed below, are written in BASIC and are self-documenting, said Tom Joehl, Data Communication Terminals Sales.

AXISB*
— Illustrates cursor addressing features to quickly plot a graph in two intensities.

ROCKE*B
— Games program showing rocket launch using cursor addressing and roll up features.

INCOMB*B
— Shows "painting" an income statement on the screen and operator controlled corrections and "rippling" of corrections to bottom line.

TARGE*B
— Games program illustrating target shooting using cursor addressing.

FEATU*RB
— Program illustrating codes to clear screen etc.

ROLLB*
— Shows fixed heading and data roll up features.

H2000*B
— a general overview of the H2000 features.

FORMF*LB
— Form fill out and input routine.

INSUR*B
— Form "painting" and data input.

TEMPB*
— Illustrates information retrieval and display of hospital patient temperature data.

1200 BAUD SERVICE

Ken Wallace, Indianapolis: When will 1200 baud service be available on Mark II? I notice the TN-300 has a capability for 1200.

Commercial 1200 baud dial up service on Mark II will not be operational until 1972. When this service begins, only selected ports will be available.

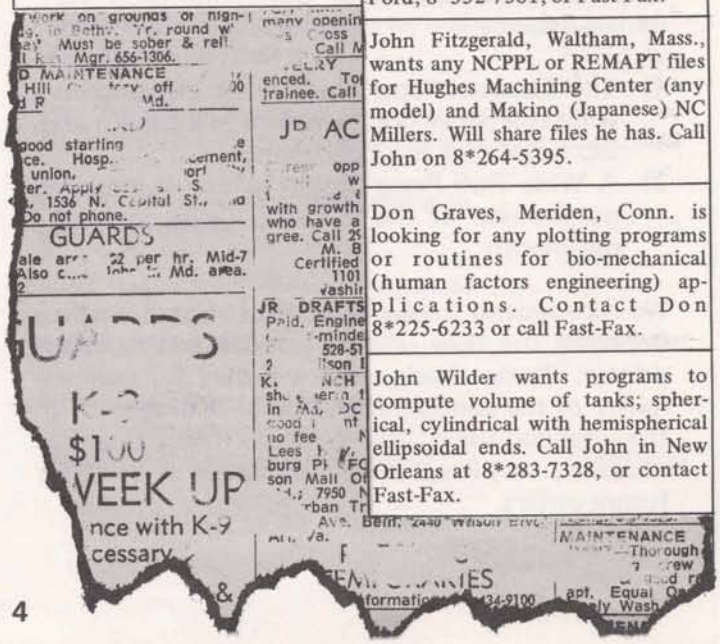
A 1200 baud tape transmission option is available on the TN300. However, you should be aware that 1200 baud operation will require a 200 series Data Set. Conventional 100 series Data Sets, acoustic couplers or the built-in integral modem only operate up to 300 baud.

In addition, the TN-300 will only send tape at 1200 baud. It will not print, punch tape or allow keyboard transmission when in the 1200 baud mode. Also, be aware that when 1200 baud is provided on a TN-300, one of the lower transmission speeds is given up — 10, 15, or 30 characters per second.

Before committing or recommending 1200 baud service on TN300 to customers, contact Terminals Sales for up to date advice, 8*273-4745.

CLASSIFIED **APR. 1, 1971**

AVAILABLE	WANTED
Routine to put commas in large numbers and dollar sign next to number amounts. Contact John Sliter, Schenectady, 8*235-9241.	Gerry Elliott, Toronto, wants programs covering ore reserve calculations of base or precious metals. Call Canadian Fast-Fax, 8*253-5412.
Errata sheets for new NCPPL Manual, 007429. Contact John Fitzgerald, Waltham Office, 8*264-5395/94.	Ron Ford Cincinnati wants a transportation program that optimizes routing one truck over several points of distribution which must return to the warehouse and reload twice. TPORT$ won't do it. Any suggestion or help, please call Ron Ford, 8*332-7361, or Fast-Fax.
Save yourself time... FIVPB* on DPØ53 lists recognized problems of FORTRAN IV.	John Fitzgerald, Waltham, Mass., wants any NCPPL or REMAPT files for Hughes Machining Center (any model) and Makino (Japanese) NC Millers. Will share files he has. Call John on 8*264-5395.
	Don Graves, Meriden, Conn. is looking for any plotting programs or routines for bio-mechanical (human factors engineering) applications. Contact Don 8*225-6233 or call Fast-Fax.
	John Wilder wants programs to compute volume of tanks; spherical, cylindrical with hemispherical ellipsoidal ends. Call John in New Orleans at 8*283-7328, or contact Fast-Fax.



NO. 95-44

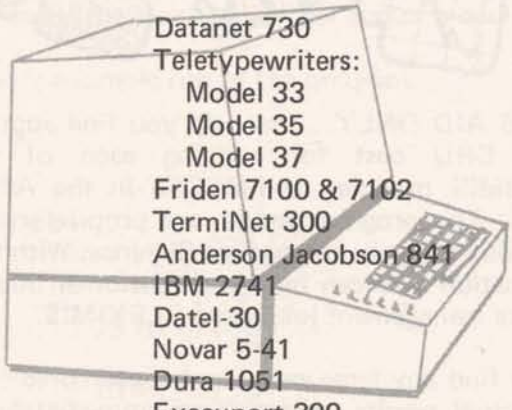
FAST-FAX

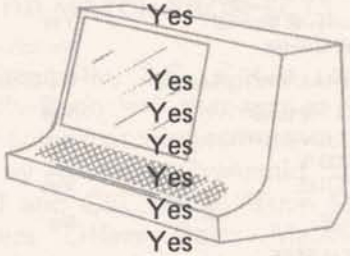
Information Services

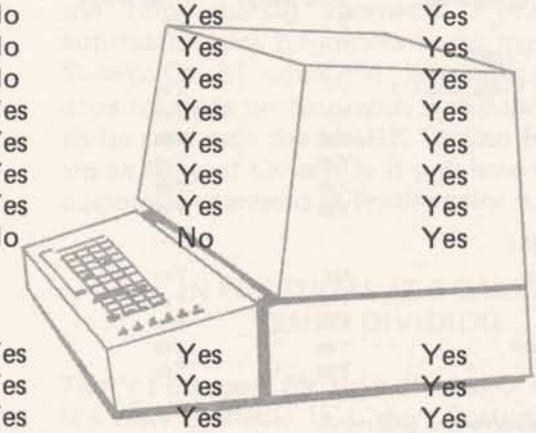
World Leader In Time-Sharing Service

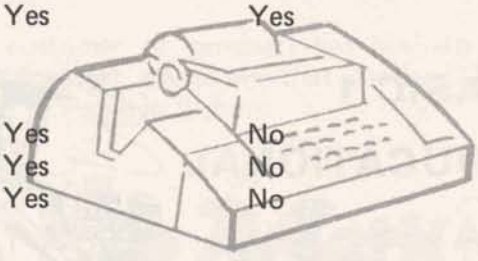
April 15, 1971

Terminals That Can Access The Various GE Services:









Printing Terminals	Mark I	Mark II/Network	Mark Delta
Datanet 730	Yes	Yes	Yes
Teletypewriters:			
Model 33	Yes	Yes	Yes
Model 35	Yes	Yes	Yes
Model 37	No	Yes	Yes
Friden 7100 & 7102	Yes	Yes	Yes
TermiNet 300	Yes	Yes	Yes
Anderson Jacobson 841	No	Yes	Yes
IBM 2741	No	Yes	Yes
Datel-30	No	Yes	Yes
Novar 5-41	No	Yes	Yes
Dura 1051	No	Yes	Yes
Execuport 300	Yes	Yes	Yes
Univac DCT-500	Yes	Yes	Yes
Syner-Data Beta	Yes	Yes	Yes
Texas Instruments 700	Yes	Yes	Yes
Inktronic	No	No	Yes
Video Display Terminals			
Hazeltine 2000	Yes	Yes	Yes
Corning 904	Yes	Yes	Yes
Video Systems VST-2000	Yes	Yes	Yes
Tektronics 4002	Yes	Yes	Yes
Datapoint 3300	Yes	Yes	Yes
Plotters			
Omega-T	Yes	Yes	No
Cal Comp	Yes	Yes	No
HP 7200A	Yes	Yes	No

1200 baud service from Mark Delta P system 201-837-3944/5
Qsystem 201-837-1859/1921

800 4-71

For Fast-Fax call: TTY 8*273-4524
8*273-4421 or 8*273-4714

GENERAL ELECTRIC

INFORMATION SERVICES MARKETING DEPARTMENT

COMPARIONS OF MARK I - BASIC 1 PRICING AND OPTIONS

	BASIC 1	MARK I
PRICES:		
Terminal Time/hr.	$ 5.75	$ 8.50
CRU	$ .03	$ .05
PSU	$ 1.75	$ 1.75
Monthly Minimum	$25.00	$25.00

	Option A	Option B*	One Option*
EDUCATIONAL OPTIONS:			
Terminal Time/hr.	$9.00	$3.00	$4.25
CRU	$ .00	$ .03	$ .05
PSU	$1.75	$1.75	$1.75

LANGUAGES:		
BASIC	Yes	Yes
FORTRAN	No	Yes
ALGOL	No	Yes
Editing	Yes	Yes
LIBRARY:	Limited	Full-over 300
DOCUMENTATION:		
Technical Manual	Yes	Yes
User Guides	No (on-line)	Yes
TUTORIAL PROGRAMS:	No CRU's	No CRU's
LEARN BASIC	Yes	Yes
LEARN FORTRAN	No	Yes
TUTOR	No	Yes
DEFINE	Yes	No
ABACUS	No	Yes (No CRU's)
SYSTEM SIZE:		
Compiled Program Size	3636 words	4148 words
Files	2	8+
COMMAND OPTIONS:		
Saved Object Code (S.O.C.)	No	Yes
Chained S.O.C.	No	Yes
Deferred Run	Yes	Yes
D.S.M.	Yes	Yes
Plot	Yes	Yes
NCT	Yes	Yes
BASIC OPTIONS:		
Random Files	No	Yes
Strings	Yes	Yes
Print Using	Yes	Yes
Matrix Package	Yes	Yes
Call	Yes	Yes

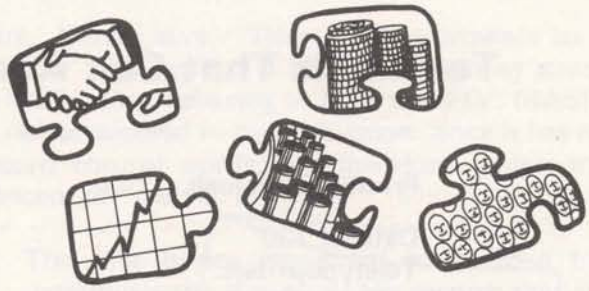
*(Applies during non prime time only)

BASIC 1 EDUCATIONAL RATES

Jim Parkhurst, Mark I Operation asks Fast-Fax to inform the field that the contract wording on Educational Rates for Basic 1 is not as clear as it might be, but educational rates are in effect on Saturdays beginning at 8 a.m.

FLEXIMIS SELLING AIDS

SBC FILE CONVERSION. . . for your customer or prospect who wants to convert his data files from SBC's MINIMIS to GE's FLEXIMIS, **Clarence Seling,** Applications Marketing, has made the program MINFLEX available on APEX. Take a tape of this program to your customer or prospect and have him put it in his SBC user number. It will produce a paper tape that is a conversion of MINIMUS data file to FLEXIMIS acceptable format.



SALES AID ONLY. . . to help you find approximate CRU cost for running each of the FLEXIMIS modules, is FMCOS$ in the APEX library. The program results are proprietary information for you, emphazises Clarence. With this information you can help your customer budget his data management jobs using FLEXIMIS.

If you find any large variances between predicted and actual results, report them immediately to Clarence, 8*273-4731. Do not run FMCOS$ with the customer or prospect. Run it in your office after you have qualified the prospect and defined his data management needs.

NEW PROGRAMS FOR GE COMPONENTS

"Inventory and Forecast Error" and "A Guide to the Determination of Safety Stock" are the names of two new BASIC programs now available for the exclusive use of GE components. Written and supported by L.G. Waters, GE Information Systems Consulting (8*222-2250) these programs are written up in Business Analysis Bulletin #411, and GE components around the country are being told about the programs and what they do.

For Mark I users, have the NCC load into the GE component's catalog FORERR (Inv. & Forecast Error) and get BAB #411 from Mr. Waters for documentation; and SERSTK (Safety Stock) and ask Fast-Fax for documentation on this one.

For Mark II users, it's SERST$*** and FORER$***. They're in the MK II on-line library. Documentation and support the same as for the Mark I.

SHARING SUBROUTINES IN A CATALOG

Information for the insert in this issue of Fast-Fax on sharing subroutines within a catalog was provided by Jerry Lechliter of AMDO. If you would like copies of this to give to your customer, to explain the operation of the LOAD statement, call Fast-Fax for extra copies.

DYNAMIC PASSWORDS AT USER LEVEL

Here's an interesting little FIV program that you can attach to the beginning of any non-listable program to prevent over-the-shoulder peeking at passwords. The program generates a random number followed by a question mark. The input (the unlocking key) must fit the pre-programmed formula (the lock), or further access is denied.

Here's a sample run of the program.

```
RUN

SECRET        10:55 D        04/12/71

      5737673?36

      5708626?55

      2549914?29

ACCEPTED

PRØGRAM STØP AT 220

USED       .26 UNITS
```

The program produced the random number followed by the question mark, and the user put in the number 36. 36 didn't fit the lock, so the program gave the user another chance.

On the third try, the 29 worked. Why?, because 29 was the product of digit 2 x digit 3 plus digit 4. The program can use any combination of procedures, known only to the author, and changeable at will. Line 170 in the program contains the algorithm for the proper key. Dinu Martin says the program is available to any DP053 user number, under the name SECRET.

PHEONIX DIAL-COMM

New telephone number for the Arizona Branch in Phoenix: 8*453-2251 or 2252

APRIL 15th...

OUR SECOND BIRTHDAY

We're now beginning our 3rd year of service to the field. Comments and constructive criticisms always welcome. Thanks for being patient when the phones (or circuits to Bethesda) were busy. Keep those cards, letters and phone calls comin' folks.

FOR COLOR-MATCH PROSPECTS

Ken Conroy, Greenville, S.C. sent a copy of "America's Textile Reporter" that carried a story about the recent color-matching seminar conducted in Greenville by American Cyanamid (authors of GECCM$***) and GE. Titled "Time Sharing Computer System Offers Color Match For $10.00" the article pointed out the advantages of the time sharing approach. Pictured was an automatic color brightness tester made by Martin Sweets Co. of Louisville. It produces 16 reflectance readings on hard copy and paper tape, ready to be read into the MARK II. Call Fast Fax for a xerox copy of the article if you have a prospect or customer interested in textile color matching.

IN PORTUGAL IT'S CALLED TEMPO DIVIDIDO

That's Portugese for time divided or time-sharing. It's now available in Lisbon Portugal as Mark I extends its Friendly Power to another country in Europe.

If your customer or prospect has business interests in Portugal, advise him that standard Mark I service is available in Lisbon.

RESOURCE ALLOCATION HAS BEEN EXPANDED

The REAL*** Program which solves CPM networks within the constraints of limited resources currently handles 160 time periods, 250 activities, and 9 resources. A 'run-big' version of REAL has now been loaded on the library. The program is named BIGREAL***; it can handle 460 time periods, 300 activities, and 9 resources.

NOTES ON THE DCT-500 TERMINAL

Dave Gwin in Buffalo sent us this information on the DCT-500 terminal

Typing with Shift key	Prints as	Transmits as	Mark II accepts as
up	UC	UC	All UC
DOWN	UC	LC	UC for programming statements & system commands.

UC = Upper Case, or all Capital letters LC — literal data
LC = Lower Case, or all small letters

What this boils down to is this: If you don't shift to upper case on the DCT-500 terminal, (even though it prints as upper case,) it transmits as lower case — and you're OK for program statements and system commands, but if you type YES to a program inquiry with the shift key up, the system doesn't get an upper case YES, it gets lower case yes, and it fouls up the program compare for YES.

Also, there's some difficulty with carriage control characters (C.C.C.) for Fortran format statements.

CCC .	normally generated	DCT-500	Alternative
&	No CR No LF	Same	not needed
BLANK	CR LF	Same	not needed
0	CR LF LF	CR LF	Format (//" " ---------
-	CR LF LF LF	CR LF	Format (///" "----------
+	CR	CR	not needed

The table above points out that to get CR and two LF's, you have to use the alternative suggested, and to get CR and three LF's the minus sign won't do the trick, you have to use the alternative.

Printing an alpha variable that has been set equal to null characters, results in blanks being printed on the DCT-500.

APEX* PROGRAMS NOT THERE?

When APEX* programs don't get accessed often enough, they get caught in the monthly purge. If you need the program, call FAST-FAX, and we'll send you a paper tape of the program. If you're in a big hurry, we can always TWX it to your teletype from ours.

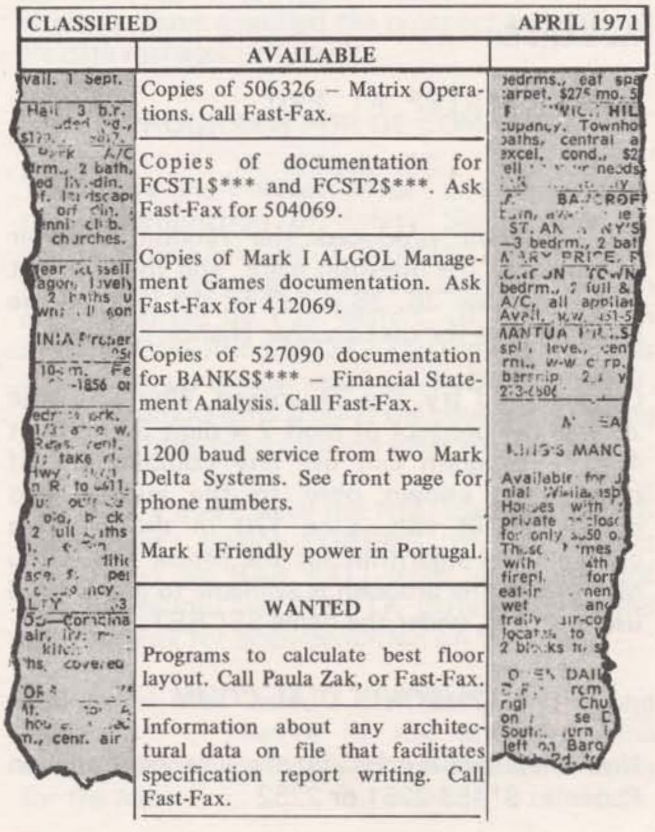
BINARY SEQUENTIAL FILE PROPERTIES

Dinu Martin says: "Here are the answers to a number of questions I have been getting about BIN-SEQ files, referring to FOR and FIV. (BASIC is not considered in this discussion, since it has no record control words, and therefore ignores the concept of "record")

NCCAM 20

1. The first binary sequential access to a file determines the size of all the records that are written. The individual sizes will remain unchanged until the file (or part of the file) is "scratched" with an ENDFILE.

2. There is no such thing as "record expansion", or "record contraction". Attempts to perform record expansion yield the diagnostic "I/O LIST TOO LONG" Record contraction (with WRITE) changes only the first word(s) that are re-written in each record.



CLASSIFIED	APRIL 1971
AVAILABLE	
Copies of 506326 – Matrix Operations. Call Fast-Fax.	
Copies of documentation for FCST1$*** and FCST2$***. Ask Fast-Fax for 504069.	
Copies of Mark I ALGOL Management Games documentation. Ask Fast-Fax for 412069.	
Copies of 527090 documentation for BANKS$*** – Financial Statement Analysis. Call Fast-Fax.	
1200 baud service from two Mark Delta Systems. See front page for phone numbers.	
Mark I Friendly power in Portugal.	
WANTED	
Programs to calculate best floor layout. Call Paula Zak, or Fast-Fax.	
Information about any architectural data on file that facilitates specification report writing. Call Fast-Fax.	

NO. 95-45

FAST-FAX

Information Services

World Leader In Time-Sharing Service

MAY 1, 1971

Terminals That Can Access Resource

Terminals	Resource
Datanet 730	YES
Teletypewriters:	
Model 33	YES
Model 35	YES
TermiNet 300	YES
Execuport 300	YES
Univac DCT-500	YES
Syner-Data Beta	YES
Texas Instruments 700	YES
Video Display Terminals	
Hazeltine 2000	YES
Corning 904	YES
Video Systems VST-2000	YES
Tektronics 4002	YES
Datapoint 3300	YES
Datanet 760	YES
High Speed Terminals (small computer)	
GE-105	YES
GE-115	YES
Honeywell 110	YES
Honeywell 120	YES
IBM 1130	YES
UNIVAC 1004	YES

2400 baud service from RESOURCE R System 301/589-9454.

2400 baud service from RESOURCE R System is available 216/433-4790 through dedicated lines.

NEW BINARY FILE SORT

A new binary file sort, BSORT$***, is now available on Mark II system to sort random or sequential binary files, producing a sorted sequential copy of either. List BSINF*** for 3-page instructions or ask Fast-Fax for a copy of the printout.

It's no longer necessary for customers to move their binary files to ASCII just to use the Generalized Store routines. Advise them now to use BSORT$***.

DOCUMENTATION, PROMOTION MATERIAL DISTRIBUTION CHANGE

The Maqua Company in Schenectady, N.Y. will be the distributor for ISMD documentation and other sales promotion material after June 1, 1971. An "On-Line" ordering system should be in place around that time. You will be receiving information about ordering procedures in the near future from the Documentation Unit.

Because the move involves large quantities of material, distribution may be slow during the last two weeks of May. Please plan accordingly...

New ordering instructions will be forthcoming!!!

800 5-71

For Fast-Fax call: TTY 8*273-4524
8*273-4421 or 8*273-4714

GENERAL ELECTRIC

INFORMATION SERVICES MARKETING DEPARTMENT

```
USER NØ.--DPØ53
PRØJECT ID--FAST-FAX
SYSTEM--BAS
NEW ØR ØLD--ØLD TELL.ME
READY
RUN
```

Calling TELL.ME is the first step in getting action on your complaint AFTER you have typed in the complaint, the system asks for your Cost Center and Dial Comm, and then for organization identification (which is SSS) and your initials. For example SSS, LSG

Now in conversation mode, ypu can specify:

a) The urgency
b) general topic area
c) who should respond

The system gives a record number to your complaint. This is your key for running another program which gives you the response the following day.

To determine the resolution of your complaint, and what action is being taken, call the program GET.RPT (the password is OUT — all printing characters) and input the record number that was assigned your complaint by TELL.ME. It's also stored on DPØ53. For TELL.ME assistance, call L. Pollard, 8*273-4203.

SETTING UP A RMS JOB?

If you have a customer pressing you for Remote Media Service (BMC) information, you may need advance information about descriptor files and how to set up your data. George Cofield, 8*273-4625, can give you some help as well as copy of the early draft of documentation.

POPULAR CHILDS' SEMINAR COMING TO EAST ORANGE

Jim Childs', top NC instructor in the business, will be conducting a 5-day seminar on REMAPT for GE Time-Sharing customers; June 14 — 18 in East Orange, N.J. The seminar is limited to 15 people and will cost each participant $250 (plus his own T&L). REMAPT Reference Manuals are included.

To enroll your customer in this seminar, contact Norm Wilson, 8*224-2201, or call Joe Domonkos, 8*273-4659. Don't miss this opportunity to help your customer become self-sufficient in NC.

MARK II IN PUERTO RICO

Mark II time-sharing service was officially introduced May 3 in Puerto Rico to complement existing Mark I service.

With the Puerto Rico tie into the Network System, a number of new data base management applications are opened up for customers there, as well as your customers in the U.S., or Canada, or the United Kingdom who have Puerto Rico affiliates.

One word of caution: Puerto Rico has a different rate schedule than U.S. GE Time-Sharing is supplied by International General Electric, Puerto Rico, and subscribers on the island must sign a contract there. However, existing Mark I users in Puerto Rico can add Mark II by opening a new catalog. Contact **Marv Broz,** manager of the Puerto Rico office, at 1086 Munoz Rivera Ave., Rio Piedras, Puerto Rico.

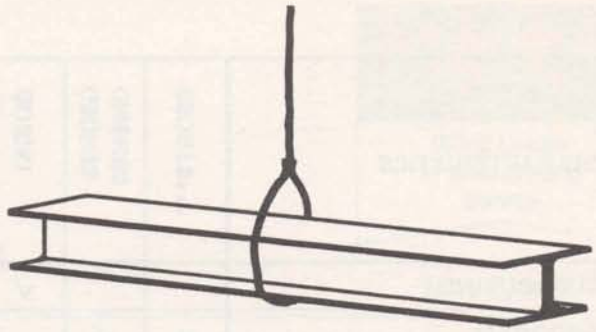
For London rates you can "talk about," and contacts for areas in which Mark II Service is planned abroad, call Jim Doyle, 8*273-4714.

TAX CODES FOR PENN AND RI ADDED TO GEPAY$

The Generalized Payroll System has been expanded to include the state income tax tables for Pennsylvania and Rhode Island said **Ray Porter,** AMDO. The new tax codes are numbered 39 and 40 respectively.

WHICH SORT ROUTINE DO I USE?

Several sort routines are now offered on the Mark II system. To help you find the proper sort for the job you want done, **John Hannah,** AMDO, has prepared a Sort Matrix which appears on the back page of this issue. Additional copies of the Sort Matrix are available... call Fast-Fax.



A NOTE FOR CIVIL ENGINEERS

If you have a customer doing civil engineering work who occassionally designs pre-stressed concrete products, remind them that LEAP Associates has software to do the job. LEAP is an Author Software Distribution Service (old Level 1). Prestressed concrete products can be designed with SLIDE$$ (In LEAP's NAQ39 catalog).

FRI OFFERS MEMBERS SOFTWARE THROUGH ASDS

Fractionation Research, Inc., a cooperative member corporation, established in 1952 to test the performance of fractionation devices on a commercial scale, is now offering its Sieve Tray Rating Program to its members through the DSS author Software Distribution Service. Access to this program is limited to FRI members only.

To sign up any prospective FRI user, **Bill Noble,** manager of DSS, said:

1. Certify membership in FRI before requesting validation in NAQ49 catalog. (All ISMD branch managers have received a membership list from Jack Cuney; if misplaced, call Fast-Fax).

2. Have official Technical Representative of the member companies contact the FRI Technical office to obtain the program, password, access name, and documentation: FRI, South Pasadena, Calif. telephone number is (213) 799-7133.

Your cooperation in the membership certification process is requested by FRI and will be important to the succees of this unique arrangement.

FLOCT* UPDATED

The popular flow-chart program in the APEX library has recently been updated by **R. Gariepy,** GE Foundry Dept., and made available by **Ron Pushee,** Schenectady. The new version includes the new features of BASIC on Mark II. It's loaded under the old name, FLOCT*.

GEPOST

Jim Gilbert, Long Beach, called and asked about documentation for GEPOST post processor. It hasn't been printed yet, but there are two files on the DPØ53 catalog that give some help. GPOST*EX is an example of the post processor, and POST** is the file.

FAST-FIX

A special sequence bug in TRAVR$***, Traverse Analysis, has been located and corrected. It involved the adjustment of the angular error of closure option; its effect may not have been noticed in most solutions.

— **Wayne Garber, AMDO**

CLASSIFIED — MAY 1971

WANTED

Dave Gwinn, Buffalo; looking for programs that store pertinent vendor information in a data base and from a driver program, a purchase order will be generated. Call Dave on 8*252-2239 or Fast-Fax.

Any time-sharing programs for the restaurant business. Contact Barry Howard, World Trade Center, 8*222-3602, or call Fast-Fax.

Program to evaluate heating and cooling of buildings. Call Art Lee, 8*241-1297 or Fast-Fax.

WANTED

Chart of Accounts File or sample general ledger run for nursing homes. Call Del Merenda, Waltham, 8*264-5394, or call Fast-Fax.

A subroutine or program to squeeze out the blanks in a BASIC program. This would result in storing in less core. Call Greg Luersen, Columbus, 8*336-5219, or Fast-Fax.

Construction estimating programs; apartment management programs. Contact Harlen Dodge, Cincinnati, 8*332-7361, or call Fast-Fax.

CHARACTERISTICS	BSORT$***	GSORT$ GMERG$	QUICKI	QUICKR	QUICKF	SHELLI	SHELLR	SHELLF	SORT1*	SORT2*		
SUBROUTINE			√	√	√	√	√	√	√	√		
PROGRAM	√	√										
SYSTEM		√										
BASIC									√			
FORTRAN		√	√	√	√	√	√	√		√		
"FIV"	√	√	√	√	√	√	√	√				
MINIMIZE CORE						√	√	√	ND			
MINIMIZE CRU	√	√	√	√	√				ND	√		
SORTS ARRAYS						√	√	√	√			
SORTS INDICES	√	√	√	√	√					√		
SORTS RECORDS	√	√										
SORTS BLOCKED RECORDS		√										
MERGES UNSORTED FILES	√	√										
MERGES SORTED FILES		√										
SORTS ASCII FILES		√										
SORTS RBN FILES	√											
SORTS B-SEQ. FILES	√											
MAX. NUMBER OF KEYS	≤5	≤5**	1	1	1	1	1	1	1	1		
MAX. RECORD LENGTH	20^{w}	144^{c}										
MAX ARRAY SIZE OR # OF RECORDS	5K	IK**	*	*	*	*	*	*	*	*		
ASCENDING – DESCENDING	√	√	*	*	*	*	*	*	*	*		
SORTS SELECTED SUBSETS	√	√										
CREATES DIRECTORY		√										
SORTS ALPHA	√	√										
SORTS INTEGER	√	√	√			√						
SORTS REAL	√	√		√			√					
SORTS FILENAMES	√	√			√			√				

MAY 1971

*Depends on driver program

**Unlimited on Multiple runs

w = words
c = characters
k = 1000
√ = yes
nd = no data

GENERAL ELECTRIC
INFORMATION SERVICES MARKETING DEPARTMENT

NO. 95-46

FAST-FAX

Information Services

World Leader In Time-Sharing Service

May 15, 1971

NETWORK WEEKS SUCCESSFUL

What do Northern California, Southern California, New York, New Jersey/Long Island and Chicago have in common? Successful Network promotion weeks – that's what!

The objective of a Network week is to introduce our expanded Network capabilities to upper management, and to get commitments to further explore applications.

The Marketing Reps made appointments with high level management at the key prospects in their areas 2-3 weeks prior to Network Week. Appointments were made with Executive VP's, Group VP's, VP's of Finance, Controller, Manager of MIS Department's, etc. And in all cases, they were accompanied by a member of the district, regional or headquarters staff.

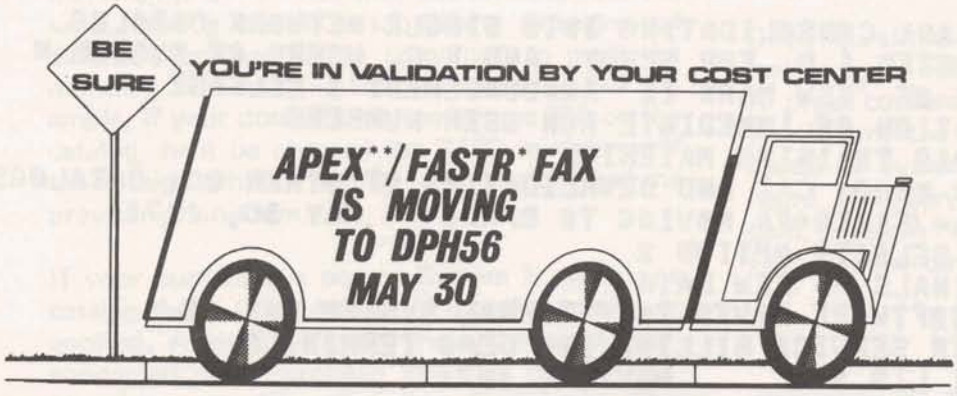
The calls were informal fact finding meetings, to determine areas where our Network capabilities could be beneficially employed now. The object of the meetings was to get a commitment for an in-depth study of a companys particular applications.

In Northern California, 39 calls made to key prospects resulted in 19 "hits" or follow ups. Some of the key prospects called on were Bank of America, Safeway, Boise Cascade, and International Harvester. The majority of the applications defined were in the 2-7K per month range. And a number of these applications may be implemented within 60 days.

Southern California calls were made simultaneously with Northern California. Paul Leadley participated in both the Northern and Southern California calls. Calls were made to such large prospects as Teledyne Corporation, U.S. Borax, Sunkist, Union Oil. On one call the Executive VP was turned on by our Network capabilities for a large inventory control system involving some 10 offices throughout the country. Possible revenue per month – $15-20K.

The NY Metro week was a resounding success for both the Financial and Industrial Branches. There were 11 teams set up over 90 calls were made with great emphasis on our International capabilities tying in London, Paris, Brussels, and Amsterdam. Of these 90 calls, there were 42 "hits."

(Cont. on page 4)



DIAL COMM Numbers for the DPH56 catalog (System D)
8*341 1296 thru 1299
8*341-1360 thru 1364
8*341-1380 thru 1383
8*271-1135 thru 1139

800 (5-71)

For Fast-Fax call: TTY:8*273-4524
8*273-4421 or 8*273-4714

GENERAL ELECTRIC

INFORMATION SERVICES MARKETING DEPARTMENT

SAVE YOURSELF TIME WITH AMDO HOT LINE

If you want to send a data tape or program bug to AMDO for help, quick response can come from using its "Hot Line" – that's 8*273-4242. This TTY has its answerback drum coded APPL 4A. When you receive that, you know that you're connected – and remember that the TAPE PUNCH IS ALWAYS 'ON'. You don't need to wait for someone to answer. A secretary nearby, upon hearing the TTY in action will deliver the message to the proper person as soon as it is completed. It's really simple to get to AMDO... fire away!

HEAT LOSS/HEAT GAIN PROGRAM FOR TEST

Jerry Lechliter, AMDO, has a large and untested Heat Loss/Heat Gain Mark II Fortran program that he would like to have a knowledgeable user try on a field test basis. Documentation is Xerox'd, but sufficient to do running and testing. Program is used for heat problems in large commercial buildings. Any takers? Call Jerry 8*273-4606.

FAST·FIX

PAYR1 may have a bug in it (if you got it off the system recently) which will cause you to get bad totals for "YR-TO-DATE". Bonnie Hoar, Bala Cynwyd, found that to correct the situation change this line and its coding:

2162 39DØ 401 I=1,10; 401 NSUM(I,2)=NSUM(I,2)+TØT1(I,1)

Thanks much Bonnie!!!

CORRECTION FOR "TERMINALS THAT CAN ACCESS RESOURCE"

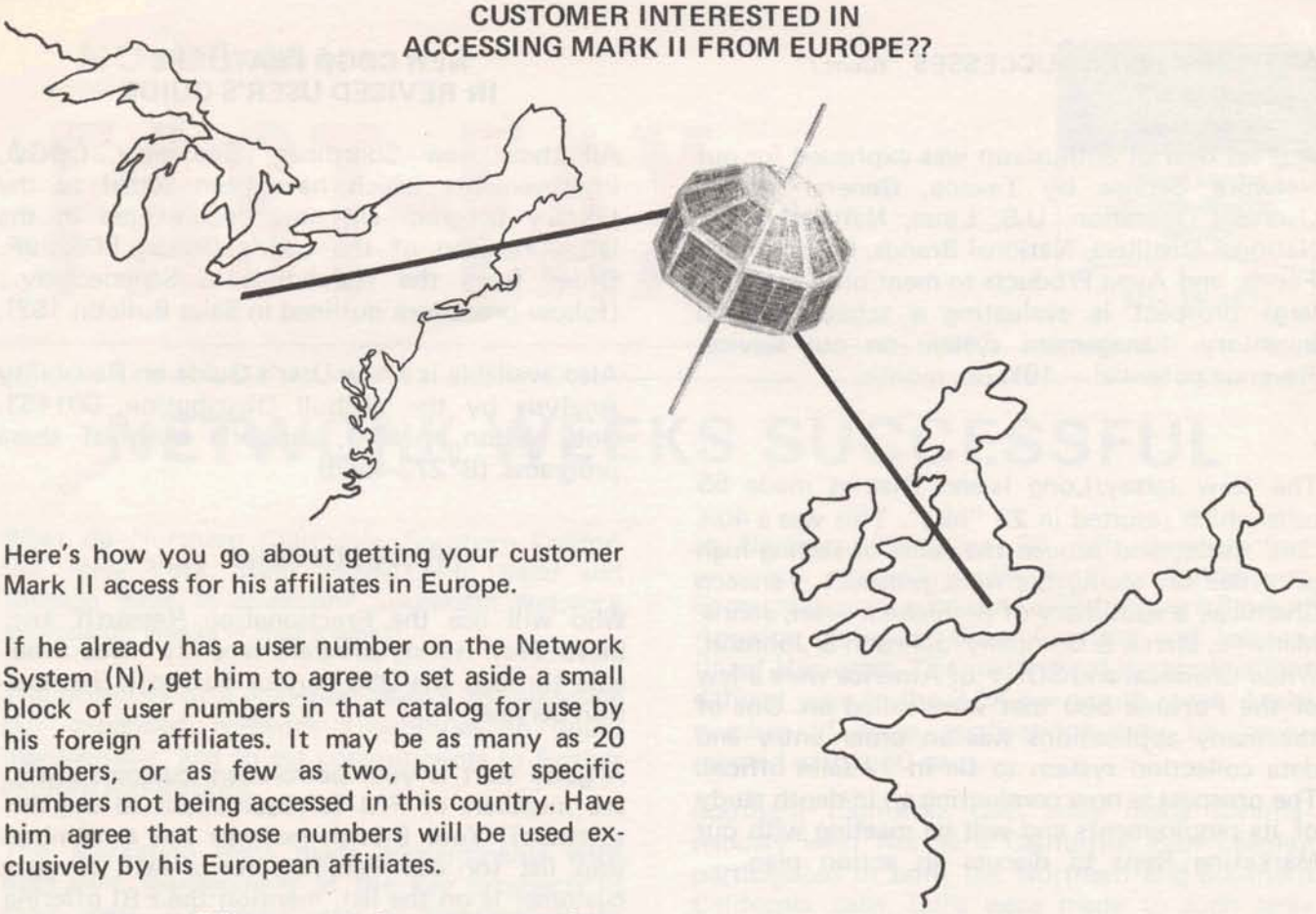
For exacting information, delete the Datanet 760 and the UNIVAC 1004 from your RESOURCE list in FAST-FAX 95-45. It should also read,

2000 baud service from RESOURCE R System by calling (301) 589-9545 or (216) 433-4790.

2400 baud service from RESOURCE R System is available through dedicated lines.

```
100   INDEX 107 TØ NEWS LISTINGS
110   UPDATED  MAY 14, 1971
120
130      NEWS2*09  CITIBANK CØNSØLIDATING INTØ SINGLE NETWØRK CATALØG
150      NEWS2*11 NEW SYSTEM I.D. FØR SCHDY. AND K.C. USERS ØF SYSTEM N
160      NEWS2*12 STATUS ØF 'NEW MARK II' ANNØUNCEMENT & RELEASE
170      NEWS2*13 VALIDATIØN ØF IMMEDIATE RUN USER NUMBERS
180      NEWS2*14 FLEXIMIS TRAINING MATERIAL
190      NEWS2*15 FNCB'S NAQ01 CAT AND DEVALIDATIØN ØF ØTHER Q01 CATALØGS
200      NEWS2*16  APEX**/FASTR*FA MØVING TØ DPH56 -- MAY 30, 1971
210      NEWS2*17  FNCB SELECTS ØPTIØN 2
220      NEWST*12  TERMINALS -- NEW DATA
230      NEWS2*18  CR3 SØFTWARE MØVES TØ EXTERNAL SYSTEM MAY 12
240   #  NEWS2*19  REPAIR SERVICE BILLING FØR DEMØ TERMINALS
900      FASTEST-FAX EDI LIS 240      MAY 14, 1971
```

CUSTOMER INTERESTED IN ACCESSING MARK II FROM EUROPE??



Here's how you go about getting your customer Mark II access for his affiliates in Europe.

If he already has a user number on the Network System (N), get him to agree to set aside a small block of user numbers in that catalog for use by his foreign affiliates. It may be as many as 20 numbers, or as few as two, but get specific numbers not being accessed in this country. Have him agree that those numbers will be used exclusively by his European affiliates.

The overseas affiliate must sign a contract there with Honeywell. Get the name and address of a person at the affiliate that has authority to sign a contract for services with Honeywell.

Call Jim Doyle, 8*273-4714, and give him the name and address of the contact abroad and the user numbers. Jim will have Honeywell in Europe contact the affiliate. It must sign a contract with Honeywell at the prevailing rates in that country. (Doyle has a list of offices to contact).

Initiation and monthly minimum will apply over there, despite the fact that the affiliate uses the same catalog and is a subsidiary. Foreign and domestic use cannot be combined to meet the monthly minimum — they're separate. For example, if your domestic customer uses $55 on the catalog, he'll be charged the $100 minimum. If the foreign affiliate uses $51, he'll be charged the prevailing minimum.

If your customer is not on System N, get him a catalog there. ($10 charge and monthly minimum applies). After July 1, and the systems are interconnected, the European affiliates can get validated to systems other than System N. This means that your customer won't need to take a new catalog on System N, if the European affiliate won't be accessing it before July 1.

COMPATIBLE TERMINALS

Don't send your customer to Europe with his Execuport — the English phones won't fit the acoustic coupler and the GPO probably hasn't approved the electronic design of their coupler. Ten characters per second is the maximum speed permissible to date in England and Europe.

WHAT CITIES IN EUROPE WILL BE ON AND WHEN?

Good question! We have knowledge of Honeywell's plans, but cannot control implementation. A press conference is planned by Honeywell at which time the European cities which will have access to System N will be announced. We have heard that they plan to have access in Amsterdam, Brussels, Paris and Milan by mid-year. Watch Fast-Fax for details from their press conference.

CATALOG OPTIONS

Regardless of the price option selected by the domestic users for the shared catalog, the foreign affiliate will pay the existing rate in the country in which it is located.

NETWORK WEEK SUCCESSES *(Cont.)*

A great deal of enthusiasm was expressed for our Network Service by Texaco, General Motors Overseas Operation, U.S. Lines, National Lead, National Distillers, National Brands, Consolidated Foods, and Avon Products to mention a few. One large prospect is evaluating a scheduling and inventory management system on our service. Revenue potential — 10K per month.

The New Jersey/Long Island District made 55 calls which resulted in 23 "hits". This was a 40% "hit" ratio, and proved the value of setting high priorities on seeing the right prospect. Tenneco Chemical, a subsidiary of Bethlehem Steel, Johns-Manville, Merck & Company, Johnson & Johnson, Witco Chemical and SONY of America were a few of the Fortune 500 that were called on. One of the many applications was an order entry and data collection system to tie in 12 sales offices. The prospect is now conducting an in-depth study of its requirements and will be meeting with our Marketing Reps to discuss an action plan.

The Chicago Network week, which was the pilot project, has already resulted in our submitting a proposal for a large order entry system. Diane Van Patten has worked closely with Bethesda to get this 6K per month application off the ground. In June there will be a follow up week in Chicago and will include St. Louis and Milwaukee.

Plans are now underway with Regional and District Managers to set up additional Network weeks and to make call-backs on all the qualified prospects. These are being coordinated by Nick Kefal and Jack Novick, Headquarters Sales.

Paul Sage General Manager of ISMD in reviewing the results of the Network Weeks with Hal Greenberg Mgr. Hdqtrs Sales said, "These results are evidence of growing maturity of our field sales force. Calling on high level management will be a payoff area for rapid growth in our business."

NEW CØGØ FEATURES IN REVISED USER'S GUIDE

All those new Coordinate Geometry, CØGØ, improvements which have been added to the Library program are now documented in the latest revision of the User's Guide, 806229F. Order from the Warehouse in Schenectady... (follow procedure outlined in Sales Bulletin 152).

Also available is a new User's Guide on Reliability Analysis by the Weibull Distribution, 001453. Bob Nelson, AMDO, supports both of these programs. (8*273-4568)

FRI CUSTOMERS . . . .

Who will use the Fractionation Research, Inc. Sieve Tray Rating program recently made available through the DSS Author Software Distribution Service?

A good start is your petro/chem customers who are members of FRI (a requirement to use this software). Your Branch manager has a membership list (or call Fast-Fax for a list). If your customer is on the list, mention the FRI offering to him.

CLASSIFIED — MAY 15, 1971

WANTED

Any programs that will grade all the students in a school? Any search and retrieval programs that will work on student transcripts? Any classroom registration programs. Contact Ad McGarrity in Shreveport. 8*355-5310 or Fast-Fax.

Who is converting the old Mark I TOPPS* program for mechanized comparative cost studies for outside plant telephone company work? Greg Luersen, Columbus, attempting to do this in DPO53 discovered someone was working on it also. Call Greg 8*336-5219.

Wants programs for space allocation, i.e. when loading box cars. Contact Dick Burke, Baltimore office, or Fast-Fax.

AVAILABLE

SUPER READ, copies of advance release documentation. Contact Wayne Garber, 8*273-4297 or Fast-Fax.

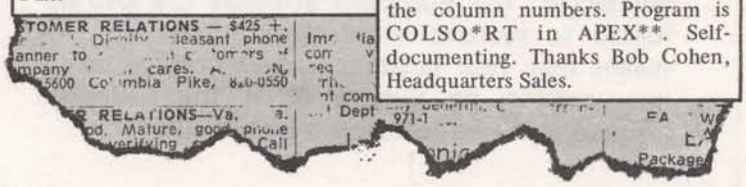
AVAILABLE

Spec sheets for a 5-level to 8-level paper tape converter (and 8 to 5-level) to help your customer with data communications 5-level equipment tie in with GE time-sharing (8-level tape). Call Fast-Fax for data sheets.

Copies of the May 11 Press Release concerning the EDP market/applications. If you have a mailing list of local EDP managers, it would be a good item to send to them. A limited supply is available from Minnie Ferguson, 8*273-4749.

TermiNet 300 demo program, VTFF**, for vertical tab and form feed now on APEX**. Self-documenting. Thanks Tom Joehl, Terminal Sales.

A BASIC column sorting program, for ASCII files, that lets you specify the input and output file names, and the column numbers to be sorted. Line lengths up to 118 caracters. You can assign priority by the order in which you insert the column numbers. Program is COLSO*RT in APEX**. Self-documenting. Thanks Bob Cohen, Headquarters Sales.



NO. 95-47

FAST-FAX

Information Services

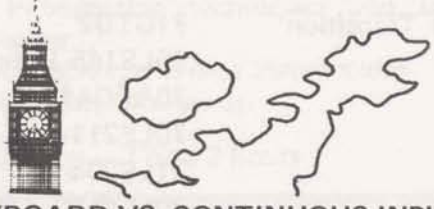
World Leader In Time-Sharing Service

June 1, 1971

LONG DISTANCE RATES LOW IN UK

Several people have called about where the Network System is available on a local call in England besides London. The man in London says they have some FX lines installed, but they're not checked out yet — hopefully by the end of June they'll be OK. Local dialing is expected within the UK from the cities of Manchester, Birmingham, Glasgow, Newcastle, and Cardiff.

If your customer wants access from a point other than those, remind him that it's only $10.00 an hour for long distance anywhere in the UK. (That's cheap compared to ours, around $1.00 a minute)



KEYBOARD VS. CONTINUOUS INPUT ON 134.5 BAUD TERMINALS

Often distortions occur in data sent from terminals which have operating capabilities at 134.5 because the input is faster than the RC can see the stop bits on characters, said **Leo Kotschenreuther, IND.** One complete stop bit is required presently by the RC hardware at all speeds. An input stream consisting of 10 bit characters (only one stop bit) can cause speed distortion to accumulate over successive characters resulting in a false break detect in the RC particularly if the terminal is a little faster than the 300 baud clock. This is why magnetic tape cassetts, card readers, paper tape input causes a problem. Some of the terminals compatible with Mark II which have the 134.5 capability are IBM 2741, DURA, and DATEL.

At the Network Week kickoff in New York City, Art Peltosalo, VP and General Manager of the Information Services Business Division, gave an overview of the Network Weeks idea. In the week that followed, those pictured were on the 11 sales teams which made over 90 calls of which 42 were hits or calls where follow-ups are being made in the NY Metro area.

TABLE OF CONTENTS FROM ALPHA SORT PROGRAM

Wayne Hagood, Technical Support IND, Bethesda, wrote a Mark II BASIC program that prepares a Table of Contents for books on which he's working. He built an input file for the subjects followed by the page numbers where they appear. The program does an alpha sort, and prints a table of contents.

Wayne says the program could just as well handle

1. Names and cost centers
2. Names and room numbers
3. Products and prices
4. Products and bin numbers
5. City names and geographic coordinates

The documentation available from Fast-Fax shows how the program makes a table of contents. Program name is INDEX* on APEX*** catalog.

800 (6-71)

For Fast-Fax call: TTY 8*273-4524
8*273-4421 or 8*273-4714

GENERAL ELECTRIC

INFORMATION SERVICES MARKETING DEPARTMENT

TECHNICAL INFORMATION EXCHANGE REPORT

Technical Information Exchange programs listed below were written within the General Electric Company and are recent additions to those listed in FAST-FAX 95-43. These TIE programs with time-sharing applications were added to the TIS ABSTRACT library in Schenectady and are generally available to persons within GE. Some programs may be available to persons outside the company. Ask Fast-Fax which component must be contacted for a particular technical report.

F101 Fluid Systems Heat Balance Program	71AEG117
Dynamic Simulation for Two Stage Fan	71AEG102
ATLAB – Analysis of Transmission Lines with Arbitrary Boundaries	70ELS61
Isotopic CO_2 Laser Study	71ELS6
Transient Performance Analysis of Synchronous and Induction Machines	70IE114-1
Throat Tap Flow Nozzle Calibrations (Hydro Electric)	71LS4
Pass-Fail Decisions on test unit data	70ND3
User's Manual for Electronics Laboratory Computer Graphics System	70ELS109
Generator Field Bar Machining	68LS223-2R4
T/S Program to Assist in Batch FORTRAN to T/S Conversion	71MD500
Steady-State Time-Shared Systems Analysis	71AEG142
Subroutine ARMPROP to Calc, mechanical properties	68LS59-1R2
J79 In-Flight Performance Program Calc. Procedure	70AEG166-1
TRANS, Predicts Laminar to Turbulent Boundary Layer Transition	71GTD2
Component Data Responsibility Code Addition	70LS145-1 and -2
Remote Graphics Library for the PDP-8	70AEG444
Stator End Bar Design System	70LS211-3
Stator Core Design System	71LS204-1
Laminar and Turbulent Kingsbury Trust Bearing Analysis	70SL218
Electromagnetic Forces Between Current Carrying Conductors	70LS206-2
Structural Analysis and Matrix Interpretive System (SAMIS)	71SD223
Linear Programming Model for Diaphragm Area Check	71LS11
Axial Flow Fan Performance Characteristics	71LS202
Design and Analysis of Axial Flow Fans	69LS215-1R (2R)
Dynamics of Ship-Cable-Towed Body Combination in Smooth Water and Rough Sea	70EMH43
Mfg. Methods for BIPOLAR MICROMOSAIC Large Scale Integrated (LSI) Circuits	70GR116
Cost Analysis of Aerospace Materials Info Center	70GR108
Planar Array Analysis	69EML24
Temperature Study of the CJ-805/23 Fan Rotating System	70AEG383
MASS Finite Element with Variable Material Properties	70AEG454
Weight and Related Data – WARD (Parts and total weight)	71AEG134
Interpretive Routine to Produce Magnetic Tape for Gerber 600 to make stripline artwork masks	70EML13
Multi-Mission aircraft propulsion simulator compressible flow analysis and roto thrust Phase LL; Supersonic Simulator	70AEG462
Critical Path Method (FORTRAN IV)	69DS2
CORNAP, Linear Circuit Analysis Program	69EMH30

PA300 "HANDS-ON" WORKSHOP

Customer workshops are known revenue generators through making users more knowledgeable and excited about using the capabilities of GE Time-Sharing. Now PA300 'Hands-On' Workshops along with a computer aided design overviews are winning customers, said **Lee Beyer**, AMDO.

AMDO personnel recently helped the East Central District with such seminars and now would like to help other Districts make the most of such customer seminars. Here's an outline of the CAD overview and the PA300 'Hands On' Workshop.

1. Computer Aided Design Overview

- Audience — Engineering management, either prospects or customers
- Subjects covered — what is CAD and examples of its use and benefits in various engineering fields, includes examples of ACNET, ECAP, DYSIM, LOGIC, PA300, STRESS & more
- Material available
  - Prospecting techniques and invitation letter
  - transparencies plus 35mm slides
  - suggested follow-up
- Duration — 1½ to 2 hours

2. PA300 Hands-on Workshop

- Audience — customers with some experience with GE Time-Sharing, Management or specialists
- Subjects covered
  - Modeling
  - Significance of deterministic, sensitivity, and probabilistic analyses in evaluating product designs
  - Hand-on exercises involving mechanical and electrical designs
- Material
  - suggested invitation letter
  - workshop handout notes (from which to make transparencies)
  - complete outline
  - 2 completed hands-on exercises
  - homework problem
- Duration — 3½ to 4 hours

If you are interested in this or any other material and need help for selling and generating revenue in the area of computer aided design, call Lee Beyer, 8*273-4660.

PEOPLE YOUR CUSTOMERS SHOULD CONTACT FOR INFORMATION ABOUT MARK II/NETWORK SERVICE OUTSIDE THE UNITED STATES

Canada

Mr. Peter King
Canadian General Electric
214 King Street West
Toronto, Ontario Canada

Puerto Rico

Mr. Marvin Broz
International General Electric Puerto Rico
1086 Munoz Rivera Ave
Rio Piedras, Puerto Rico

U.K.:

Malcolm Davies, Network Branch
Sales Manager
Honeywell I.S. Ltd.
114-118 Southampton Row
London, W.C. 1, England

Italy:

Carlo Valente, Time-Sharing Sales Manager
Honeywell I.S. Italia
Via G. Fara 20,
20124 Milan, Italy

Honeywell Bull
Headquarters

Pierre Costamarini, Mark II Marketing
Manus Welkers, Time-Sharing I.A.
Honeywell Bull
94, Avenue Gambetta
Paris 20, France

France:

B. Cavaille, Time-Sharing Manager
Honeywell Bull
179, Avenue de Neuilly
92 Neuilly, France

Holland:

Bill de Beer, Time-Sharing Manager
Honeywell Bull
Brouwersstraat 4
Amersfoort, Netherlands

Belgium:

Xavier Cruysmans, Time-Sharing Manager
Honeywell Bull
28 Avenue Marnix
1050 Brussels, Belgium

FOR PROSPECTIVE DSS AUTHORS

When you have a customer sking about making his software available on GE Time-Sharing Service, you can save explanation time by providing him with and information sheet about Author Software Distribution Service, now available. Prepared by Datanet Software Services, it covers what GE provides and what the customer must provide. For copies of ASDS information, ask **Bill Noble, DSS manager**, to send you copies of DSS FL-19... call on 8*273-4657.

NC POST PROCESSORS ON APEX** UPDATED

Bob Bruning, Cincinnati, has improved several of the post processors on APEX**. He has added a sub-cycle which generates a rectangular mesh of random pattern of points and a post processor for Brown and Sharpe 234 Hydro-Tape GE 103P Control. The NCPPL*CA listing now gives the date a post processor was added or modified. Ask Fast-Fax for a copy of the current printout (7 pages) of NCPPL*CA.

SQUEEZE from GEORGE

In reply to a Want Ad from Greg Luersen, Columbus, George Chipman, Pittsburgh, had a routine which removes the blank spaces in a BASIC program to help fit it into the 6000 character storage limit. We now have it on APEX** under the name SQUEZ*, it's self-documenting. Thanks George.

'NAMES' IN TPØRT$***

Users solving transportation and distribution problems with the TPORT$*** program can now make sources and destinations known by 'names', says **Din Kurawadwala, AMDO.** If you do not elect the new option, the program will printout the source and destination 'numbers' as usual.

For source and destination 'names':

a) All line numbers must be three digits long.
b) Place the names for source as well as for destination on separate lines (one name per line).
c) Input all source names first, then all destinations

To use this input with other required data, see Users' Guide, 907342, Transportation & Distribution.

NEW "SIZE" FUNCTION IN BASIC 1

To help your customers convert competition's programs to BASIC 1, a new function helps a lot — it's called SIZE. It helps you determine that the size of the object program is not exceeding the limitation of 3636 object words. For example,

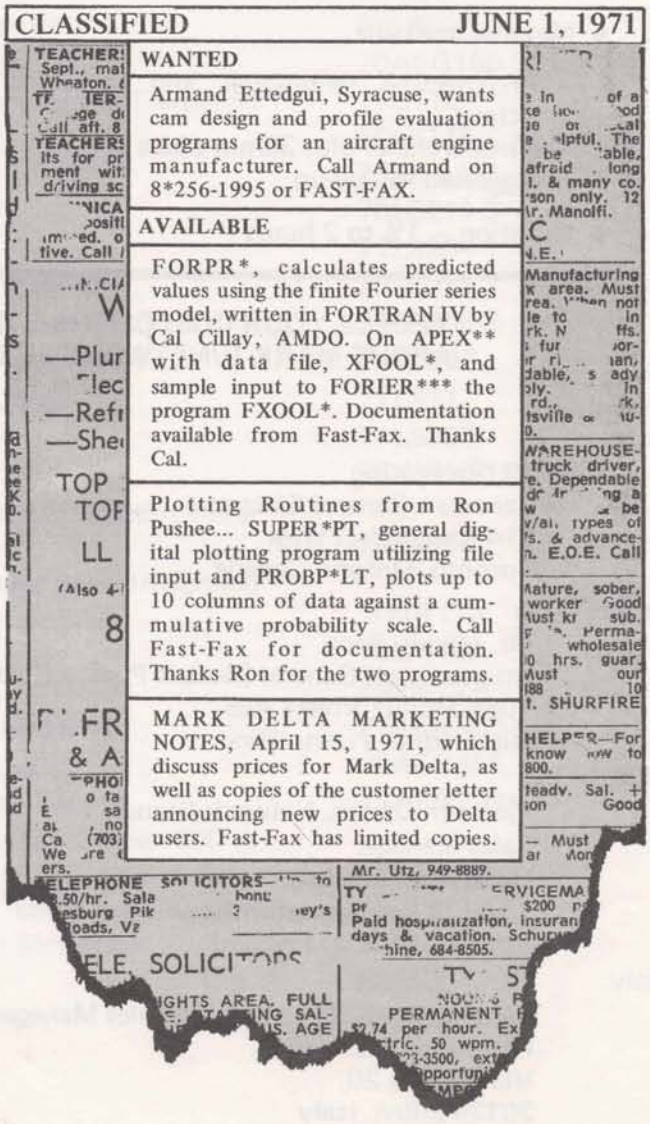
```
730 DATA 3,4,7,9
735 DATA 4.1,9,8,2
745 SIZ
750 END
RUN
```

BASIC 1 will then print the program header, the program will be compiled, BUT NOT EXECUTED, and the following line will be printed.

```
OBJECT SIZ 2836 IN 745
```

By deleting line 745 and typing RUN again, the program will execute.

Some BASIC 1 users place the SIZ command at frequent intervals in their coding where they feel they are approaching maximum size. The OBJECT SIZ printout will tell them what line of coding produces the over-maximum condition.



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WANTED

Armand Ettedgui, Syracuse, wants cam design and profile evaluation programs for an aircraft engine manufacturer. Call Armand on 8*256-1995 or FAST-FAX.

AVAILABLE

FORPR*, calculates predicted values using the finite Fourier series model, written in FORTRAN IV by Cal Cillay, AMDO. On APEX** with data file, XFOOL*, and sample input to FORIER*** the program FXOOL*. Documentation available from Fast-Fax. Thanks Cal.

Plotting Routines from Ron Pushee... SUPER*PT, general digital plotting program utilizing file input and PROBP*LT, plots up to 10 columns of data against a cummulative probability scale. Call Fast-Fax for documentation. Thanks Ron for the two programs.

MARK DELTA MARKETING NOTES, April 15, 1971, which discuss prices for Mark Delta, as well as copies of the customer letter announcing new prices to Delta users. Fast-Fax has limited copies.